# On the Hymenoptera of the Albany Museum, Grahamstown, South Africa.

# BY P. CAMERON.

#### FIRST PAPER.

Dr. Schönland, the Director of the Albany Museum, Grahamstown, South Africa, having sent me the *Hymenoptera* contained in the Museum under his charge for the purpose of examination and description, I intend in this series of papers to describe the new genera and species.

## THYNNIDÆ.

#### Odontothynnus, gen. nov.

Apex of clypeus bidentate. Eyes slightly incised on inner side, reaching to the base of mandibles, which are stoutly bidentate. Temples long. Occiput broadly rounded. Antennæ stout, as long as the thorax : the 3rd joint shorter than the 4th. Radial cellule long ; there are 4 cubital cellules : the 1st transverse cubital nervure broken below the middle by the stump of a nervure : transverse median nervure received shortly behind the transverse basal ; transverse cubital nervure in hind wings broken above the middle. Legs short and stout ; hind claws simple ; the fore cleft: hind tibiæ serrate. Abdomen sessile, flattish, broad above : pygidium bluntly rounded ; the hypopygium projecting beyond it, its apex bluntly rounded.

The maxillary palpi are 6 ; the labial 4-jointed : the pronotum in the centre is as long as the mesonotum which has distinct parapsidal furrows ; scutellum large, not much raised above the mesonotum ; post-scutellum clearly separated from it. Median segment large, rounded behind ; the metapleuræ keeled below. The 3rd cubital cellule in front is twice the length of the 2nd. Abdomen not much longer than the head and thorax united. Body black, pilose.

The exact systematic position of this genus can only be satisfactorily settled when the, no doubt apterous, female has been discovered. Possibly it may form the type of a new sub-family, which might be defined by the toothed apex of clypeus, bidentate mandibles, serrate tibiæ, longish metathorax, by the basal 2 abdominal ventral segments not being separated by the 2nd projecting straight or obliquely downwards, and by the absence of a curved spine on the apex of the abdomen.

# Odontothynnus bidentata, sp. nov.

Black, densely covered with white pubescence : the lower half of the inner eve orbits narrowly above,-more widely in the centre-face, clypeus, base of mandibles, the base and outer side of the 4 front tibiæ, the spurs and tarsi and the base of the hind tibiæ, and a broad band on the apex of the pronotum, pale yellow. Front and vertex closely, distinctly, and uniformly punctured. opaque: the part behind the ocelli more shining and sparsely punctured, densely covered with long white pubescence; the clypeus with the pubescence longer. Middle of mandibles piceous. their apex black. Palpi black, the apical joints testaceous. Thorax closely, strongly punctured, opaque, the apex shining, more sparsely punctured. Abdomen opaque, shagreened, the apices of the segments smooth and shining. Hind tarsi tinged with rufous. The 1st recurrent nervure is received shortly, but distinctly behind, the 2nd shortly beyond the middle of the cellule, Antennæ opaque, almost bare. The face at the eyes above ends in a short rounded tooth, and there is a less distinct one on the lower side. The wings have a distinct fuscous-violaceous tinge, with black stigma and nervures; the 3rd cubital cellule is not much wider in front than behind.

Length 11-12 mm.

Grahamstown, Miss Sole. Martindale, Mr. Barnes.

Odontothynnus lacteipennis, sp. nov.

Length 10 mm. Male. Grahamstown. September : Misses Daly and Sole.

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This species is closely related to O. *bidentatus* from which it may be known as follows :—

Costa and nervures white, the wings clear lacteous hyaline, 3rd cubital cellule distinctly narrowed behind, the recurrent nervure received in the middle; 1st transverse cubital nervure straight, oblique above. *(lacteipennis)*.

Costa and nervures black, the wings hyaline, the apical half fuscous violaceous; 3rd cubital cellule not narrowed behind, receiving the recurrent nervure clearly behind the middle; 1st transverse cubital nervure rounded above. (bidentatus).

The 3rd transverse cubital nervure is roundly curved; the 1st has not a stump of a nervure where it commences to bend towards the apex of the wing; the yellow band on the pronotum is triangularly incised in the centre; the punctuation on the head and thorax is stronger, closer, less distinct, more rugose; the tibiæ are more broadly marked with black. As in the larger species there is a yellow mark behind the top of the eyes.

# CYNIPIDÆ, ENCOILÍNÆ.

#### Bothrochacis, gen. nov.

Male. Antennæ longer than the body, 15-jointed, the joints elongated. Scutellum pyramidal, rising obliquely from the base and apex to the top, the basal slope the longer, its centre raised, narrowed at the base, becoming gradually wider to the top; the cup-like depression is placed on the top of the apical slope. Parapsidal furrows absent. Metanotum with 2 stout keels in the centre. Lower part of mesopleuræ bordered by a keel, above which is an impressed line. Radial cellule open along fore margin.

The wings are long, bare, their margin not ciliated; the antennal joints 4 or 5 times longer than wide, the 3rd and 4th equal in length, the last longer than the preceding. Scutellar foveæ large, longer than wide, rounded at the base; the alar nervures are thicker than usual. The stout outer partition bordering the scutellar depression has a hyaline, oval spot in the centre, or it may be a hole.

The female of this genus I do not know; but the male may be readily known from any of the described genera by the pyramidal scutellum, raised in the centre, with the cup-shaped depression on the apical slope and not visible from above.

# Bothrochacis erythropoda, sp. nov.

Black, smooth and shining; the flagellum of antennæ dark red; the legs and abdomen of a clearer, brighter red; the wings dark smoky to the areolet (which is open below); the radial cellule clear hyaline, the nervures black; the basal abscissa of radius straight, two-thirds of the length of apical, which is roundly curved; a curved, thick spurious nervure extends backwards to the transverse basal nervure; the cubitus faint, thin, not extending much beyond the middle. Abdominal hair fringe dark white. Legs sparsely covered with white hair. Male.

Length 4 mm.

Grahamstown. November: Misses Daly and Sole.

## BRACONIDÆ.

# Iphiaulax soleæ, sp. nov.

Vermillion-red; the head, except the face, oral region, inner orbits, the outer except for an oblique mark below the middle, lower half of the propleuræ, a large mark on the mesopleuræ, rounded at the base and apex and with its basal half obliquely dilated upwards and a large mark in the centre of the metapleuræ, black; wings almost uniformly dark fuscous; costal and the 1st cubital cellule paler; the costa and stigma black. Female.

Length 9; terebra 2 mm.

Grahamstown : Misses Daly and Sole.

Antennæ stouter than usual. Front not much depressed ; its furrow wide and deep. Maxillary palpi testaceous. Central area

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of 1st abdominal segment with a straight stout central and a thinner, more irregular keel on either side of it; the lateral depression is bordered on the outer side by a stout keel; the 2nd is longitudinally striated, more strongly and irregularly in the centre; the basal keel not clearly defined; the basal two furrows are wide, moderately deep; the 3rd is narrower; all are closely striated; the 3rd, 4th and 5th segments have furrows, obscurely striated, on the apex, that on the 5th being the wider.

# Iphiaulax whitei, sp. nov.

Vermilion-red: the antennæ, occiput, front and vertex, except narrowly along the eyes, the face to the clypeal depression, the upper three-fourths of the temples, the upper edge of the prothorax, narrowly in the centre, more broadly on the sides, tegulæ, an oblique mark immediately below them, the greater part of the ventral surface of the abdomen and more or less of the 3rd and 4th dorsal transverse furrows, black. Wings fuscous, the greater part of the 1st cubital cellule and the base of discoidal cellule almost hyaline; the base of the wings paler than the apex; the costa and stigma coloured like the body. Male and female.

Length 13 mm.; terebra 4 mm.

Brak Kloof Farm. March : Mrs. G. White.

Front and vertex smooth, shining, not much depressed furrowed in the middle; face sparsely punctured; there are 2 large dull red spots immediately below the antennæ; the occiput covered with long black, the face with shorter fuscous, hair, Thorax smooth and shining; parapsidal furrows indistinct. Central lobe of petiole with stout, clearly separated longitudinal striæ. which do not reach to the apex, which, as well as the sides, are smooth; the 2nd, 3rd, and 4th segments are closely, strongly, longitudinally striated, their furrows more strongly striated, with the striæ more widely separated; the 5th segment is obscurely striated on the basal half; the others smooth; the last is paler coloured; its basal half becomes gradually, roundly narrowed: the apical much narrower. There is no area on the base of the 2nd segment, but the 2nd is there more stoutly striated. The nervures in the hind wings are black.

## Iphiaulax spilonotus, sp. nov.

Vermilion-red, the head, except for 2 marks below the antenna, the oral region and the inner orbits narrowly; the apex

## Albany Museum Records.

of the pronotum narrowly, the upper part of the propleuræ, the mark largely dilated at the apex and curved downwards, the lower edge and the prosternum a large mark, longer than broad, on the apical half of mesonotum, its sides joined to the base by a narrow line, an irregular mark reaching near to the apex and dilated at the base, on the sides of the metanotum, the mesopleuræ at the base above behind the oblique furrow, a large, longish mark, wide at the apex in the centre and a line along the upper half of the base of the metapleuræ, black. Wings fuscous, paler below the stigma : the costa and stigma red ; the nervures black ; the recurrent nervure is received distinctly in front of the transverse cubital nervure, not interstitial. Male.

Length 9 mm.

Brak Kloof. January; Mrs. G. White.

Front and vertex smooth and shining, the former not depressed. furrowed in the middle; antennal tubercles rufous; face shagreened. Mandibles rufous, broadly black at the apex; palpi blackish, the apical joint of the maxillary, testaceous. Parapsidal furrows obsolete. The middle lobe of 1st abdominal segment irregularly longitudinally striated; the sides closely striated at the base; the 2nd and 3rd segments strongly, closely striated; the centre of the 2nd is raised at the base, the basal part widest and it is more closely striated; the 4th and 5th are shagreened in the middle; the suturiform articulation wide, deep, the other 2 furrows are narrower, especially in the centre ; the sides at all the furrows are raised and smooth; there are narrow, striated furrows on all the segments at the apex. Tarsi paler than the tibiæ, their apex fuscous. The alar nervures black : the base of the cubitus pale : there is a black mark on the base of the tegulæ.

## Exothecus spilopterus, sp. nov.

Rufous, smooth and shining; the antennæ, the hind tibiæ from near the base and the hind tarsi black; wings yellowishhyaline; the apex of the costal cellule, the prædiscoidal cellule except for a small spot near the lower part of the transverse basal nervure, and a longer, narrow one along the lower part of the basal abscissa of the cubitus, an irregular cloud extending from the base of the stigma to the base of the radius across the wing, a slightly narrower cloud on either side of the 2nd transverse cubital nervure, extending on to the radial cellule, where it is oblique and roundly narrowed in front and behind slightly beyond the cubitus;

a cloud in the centre of the pobrachial cellule, the apex of the hind wings, their apical margin narrowly, a broad irregular cloud in the middle, not reaching to the base and a shorter, narrower one between it and the base on the apical half of the wings, fuscons : the nervure and stigma yellow on the uncoloured parts of the wings. Female.

Length 13; terebra 13 mm.

Grahamstown. November : Dr. H. Becker.

Abdomen smooth and shining; the keel on base of 2nd segment, not clearly separated, broad at the base, becoming gradnally narrowed to the apex, reaching to the middle of the segment : its sides with a deep curved furrow reaching near to the apex; the 3rd segment with a shallow oblique furrow on the sides at the base.

# Exothecus capensis, sp. nov.

Length 15 mm. Male.

Hab. Knysna. April : R. M. Lightfoot.

This species is identical in colouration with E. tibialis; it may be easily known by the structure of the abdomen; the raised part of the 1st abdominal segment becomes distinctly narrowed towards the base and there is a narrow furrow down the centre near the apex; the dilated part of the keel on the 2nd segment does not reach to the middle; there is a similar keel on the 3rd, a less distinct one on the 4th, and a furrow on the basal half of the 5th; the space bordering all the keels is depressed. The lateral furrows on the 2nd segment is wide and reaches near to the apex; there are oblique furrows on the sides of the 3rd, 4th and 5th segments at the base: the furrows become gradually shorter: that on the 3rd reaching to the middle of the segment. Apex of clypeus obliquely depressed. Temples roundly obliquely narrowed, as long as the antennal scape. The transverse median nervure is received nearer the transverse basal than it is in E. tibialis.

# Exothecus canaliculatus, sp. nov.

Length 18-21 mm. Male and Female. Brak Kloof. January : Mrs. G. White. This species is similar in the colouration of the body, antenna:

## Albany Museum Records.

and legs to E. tibialis, but is a larger and stouter species. In *tibialis* the transverse median nervure has a more distinct slope. and as a consequence the podiscoidal cellule is wider in front. which is not the case with the present species; the occiput is not transverse as it is in *tibialis*, but is broadly, roundly incised : the abdomen is broader, more dilated in the middle : the apex of the elvpeus projects more at the base and more especially at the apex. the centre therefore appearing more depressed; the hyaline spots in the wings are larger; the 1st cubital cellule is almost entirely hyaline: there is a large cloud, longer than broad, dilated at the base, and extending beyond the middle of the cellule on the outer side of the recurrent nervure and continuous with the cloud in the 1st cubital cellule and may be continued to the apex of the wing, or separated from a spot at the outer edge; the cloud at the the 2nd recurrent nervure is large and is continued beyond the cubitus: the keel on the 2nd abdominal segment is united to the raised lateral lobe and without a distinct depression. There is a distinct oblique depression on the sides of the 3rd and 4th segments: in *E. tibialis* on the 3rd only.

## Trichiobracon rufus, sp. nov.

Rufous, the vertex, front, face immediately below the antenna, the outer orbits to the bottom of the eyes and antenna, black; wings fuscous, the costal cellule in front, the 1st cubital cellule except for a triangular cloud at the apex in front, a triangular cloud in the apex of the 1st discoidal cellule and a larger, more irregular one in front of the recurrent nervure, the greater part of the costal cellule in front and a large cloud shortly beyond the middle, hyaline; the stigma and the nervures, except in the hyaline parts, black. Body covered thickly with white pubescence. Female.

Length 12, terebra 7 mm.

Martindale. April : Barnes.

Antennæ covered with a black pile, thickest and longest at the base. Face and clypeus rugosely punctured; the lower inner orbits punctured; the depressed front furrowed in the middle. Mandibles, except at the base, and palpi black. Pro- and mesothorax smooth; the sutures striated; the furrow on the propleuræ with stout keels; their lower part closely, strongly, irregularly striated; the 2nd less strongly striated; the furrow surrounding the raised central part at the base wide, and with distinct, clearly

separated oblique striæ; the curved apical furrow more strongly striated than the central portion; the apical 3 segments are smooth; the middle finely, closely striated except at the apex. Second cubital cellule longer than wide, of equal width throughout; in length not quite double the length af the 1st abscissa of the radius. The 2 spines on the hind coxæ are large and stout; the basal stouter and twice the length of the apical.

#### Trichiobracon maculifrous, sp. nov.

Luteous, the antennæ, the centre of the front of the antennæ and the hind tibiæ and tarsi black ; the fore wings to the transverse basal nervure, the base of the 1st cubital cellule, an irregular mark, broader than long near the base of the 3rd cubital cellule, and a square one at the base of the anal nervure, yellowishhyaline ; the rest dark fuscous ; the hind wings yellowish-hyaline to the transverse præbrachial nervure, beyond that dark fuscous. Male,

Length 13 mm.

Martindale. April : Barnes.

Antennæ as long as the body; the scape thickly, the basal joints of flagellum sparsely covered with long hairs. Face strongly punctured, the clypeus more closely punctured, clearly separated, roundly convex. Mesonotum sparsely punctured; its depressed apex with 2 keels which converge at the apex, having a straight keel on the outer side and with some transverse ones inside. Scutellar depressions large, with 4 stout keels in the centre. Median segment sparsely punctured. The basal 3 segments of the abdomen are irregularly longitudinally striated, as is also, to a less extent, the basal half of the 4th ; the suturiform articulation and a narrow transverse furrow at the base of the 4th and 5th segments are closely transversely striated. The head, thorax, base of abdomen are thickly covered with long hair ; the basal tooth on the hind coxæ is long, stout and curved ; in front of it is a short, stout one: the 3rd abscissa of radius is longer than the basal 2 united.

## Schönlandella, gen. nov.

Eyes large, parallel, hairy. Malar space distinct, occiput not margined, transverse. Clypeus separated from the face, its apex transverse, shortly bituberculate in the middle. Fore wings with 3 cubital cellules; the 2nd transverse cubital nervure hyaline:

the apical abscissa long, roundly curved upwards; the recurrent nervure received near in the apex of the 1st cubital cellule; the transverse median near the base of the discoidal. Stigma large. The radius and cubitus in the hind wings extend to the apex, the transverse discoidal nervure is interstitial, the radial cellule divided in two by an oblique nerve behind the middle; the median discoidal absent; there is an axillary cellule. Middle lobe of mesonotum clearly separated, not reaching to the scutellum: parapsidal furrows deep. Post-scutellum depressed; bounded behind by a curved furrow. Median segment rugose; there is a large area in its centre, wide in the middle, gradually narrowed to the base and apex; this is bounded by 2 large areas. Abdomen short, broad, bluntly broadly rounded at the apex; sheaths of ovipositor short, broad. Legs stout, short; claws small, simple; calcaria fully half the length of metatarsus. Antennæ stout, shorter than the body. The temples are broad, roundly dilated, projecting beyond the eves; the pterostigma large, the radius dilated at its base. There are 7 abdominal segments. Radial cellule long and narrow, extending to the apex of the wing; the radius originates shortly beyond the middle of the stigma. Second cubital cellule large, as wide at the base as at the apex. There is a large curved furrow on the lower apical half of the mesopleuræ, which is wide at the base, becoming gradually narrowed to the apex. The systematic position of this genus is not very clear. The shape of the mouth removes it from the large division of the Cyclostomi. Of the Polymorphi it reminds one of the Ophiida. It differs from all known Braconidæ in having 2 radial cellules in the hind wings, a character which is sufficient to make it the type of a new tribe. That character with the hairy eyes, tuberculated clypeus and roundly curved upwards radius make it an easily recognised genus.

# Schönlandella nigromaculata, sp. nov.

Rufo-luteous; the antennæ, vertex, front, except near the eyes, the middle lobe of mesonotum except near the apex, the greater part of the lateral lobes, base of scutellum, the base of metanotum, a large mark on the apex of mesopleuræ, dilated forwards at the base below, and backwards at the apex (but to a less extent compared with the base), the base of metapleuræ, sternum, apex of abdomen above, coxæ, trochanters and 4 hinder tarsi, black; wings fuscous, the stigma and nervures black. Female. Length 5 mm.

Hab., Museum Grounds, Grahamstown.

Smooth, shining, almost bare. Scutellum bifoveate at the base. The area on metanotum smooth, its base acutely narrowed to a point, the apex not so strongly narrowed and rounded; there is an indistinct transverse keel in the middle; the rest of the metanotum rugose.

# Schönlandella trimaculata, sp. nov.

Length 5 mm. Female.

Hab., Grahamstown.

This species may be separated from *S. nigromucula* as follows:

Plenrae, sternum, base of metanotum, and base of legs black; wings fuscous, the nervures and stigma black. *(nigromaculata)*. Mesosternum only black; the wings almost hyaline, the nervures testaceous. *(trimaculata)*.

The middle lobe of mesonotum is entirely black and the lateral for the greater part: the colour of the body wants the reddish tint of *nigromaculata*, it being yellowish testaceous; the legs are similarly coloured with only the apex of the hind tibiæ and the hind tarsi black; the area on the metanotum has not the basal keels so clearly defined; the vertex is black; the black mark on the front becomes gradually narrowed towards the base of the antennæ; the 2nd transverse cubital nervure is pale.

# Schönlandella nigricollis, sp. nov.

Black, thickly covered with a white down; the abdomen, except the apical segment, and the legs, except the coxæ and the posterior tarsi, rufo-luteous; wings fuscous, paler at the base, the costa and base of stigma luteous, the rest and the nervures black. Female.

Length 6 mm.

Museum Grounds, xi. '01, Grahamstown.

Antennæ stout, 33-jointed, covered with a microscopic down. Parapsidal furrows closely striated, more strongly towards the apex. Scutellar depression closely, stoutly striated, as is also the depression at the sides of the post-scutellum. Median segment opaque, closely rugose. Tibiæ and tarsi densely, shortly pilose. Centre of basal segment raised, narrowed at the base, clearly separated.

# Mesoagathis, gen. nov.

Malar space large, but not quite so long as the eyes, the face not much narrowed below; apex of clypeus broad, transverse: the face broadly raised in the middle, foveate laterally at the apex; the labrum large, broadly rounded at the apex. Front not excavated. Occiput roundly incised. Radial cellule short, not reaching to the middle of the apical part of the margin; 1st cubital and 1st discoidal cellules confluent; areolet almost square; transverse basal nervure interstitial. Hind wings with a closed discoidal cellule. Foreclaws cleft. Calcaria very short. Apex of median segment transverse, the sides slightly roundly projecting; in the centre is a large area which extends to the top of the apical slope; beneath it is a small, broader than long area; the sides are margined; the spiracles moderately large and long.

The trophi are elongated : the maxillary palpi 5-jointed; the parapsidal furrows distinct, the middle lobe of mesonotum clearly separated. Abdomen (in male) sessile, shorter than the thorax. Legs stout, the metatarsus as long as the following 3 joints united. Mandibles curved, longish, edentate. Scape of antennæ fully 3 times longer than thick, narrowed at the base. Apex of scutellum transverse, margined.

The malar space is not quite so long, nor so much narrowed below as in the typical *Agathidini*, but it is longer than in the typical *Microdini*. In some respects it approaches *Disophrys*, but the hollowed front with keels separates that genus.

## Mesoagathis fuscipennis, sp. nov.

Black, shining; the legs red; all the coxæ, trochanters, apex of hind tibiæ and hind tarsi black; wings dark fuscous, iridescent, the nervures and stigma black. Male.

#### Length 7-8 mm.

Grahamstown. November : Misses Daly and Sole.

Antennæ as long as the body. Face and clypeus thickly, the rest of the head sparsely covered with long white hair; the raised central part of the front bordered on the outer side by a stout keel; in the centre is a narrower keel. Pro- and mesothorax shining; their pleuræ thickly covered with white pubescence:

the rounded apex of the middle lobe of mesonotum with stout striæ. Scutellum roundly convex, sparsely punctured. Area on metanotum with some stout, irregular keels, its sides irregularly rugosely punctured, more strongly at the apex than at the base. The curved depression on the lower part of the mesopleuræ has some irregular keels; the metapleuræ coarsely punctured, almost reticulated. Legs densely pilose; their hind coxæ not much lengthened. The temples are rounded, not narrowed.

#### Apanteles basimacula, sp. nov.

Black; the basal 2 segments of abdomen whitish testaceous, the 4 front legs testaceous, tinged with fulvous, their coxæ black : the hind legs black, a band, slightly longer than the black base, close to the base of the hind tibiæ and the calcariæ whitish testaceous, the tarsi for the greater part testaceous; wings clear hyaline, the nervures black; antennæ dark testaceous, darker towards the apex. Male.

Length 4 mm.

Museum Grounds, Grahamstown. November : Misses Daly and Sole.

First abdominal segment slightly, but distinctly longer than its width at the apex, becoming gradually, slightly wider towards the apex, slightly longer than the 2nd, which is again slightly longer than the 3rd; the basal 3 segments with a smooth, slightly raised line down the centre; alutaceous; the other segments smooth and shining, Palpi testaceous. Pro- and mesonotum alutaceous, almost punctured; metanotum rugulose, stoutly keeled down the centre; on the sides at the apex are 2 short keels, the outer straight, the inner curved. Pro- and mesopleuræ closely punctured, the apex of the former and a large spot on the apex of the latter in the centre smooth and shining; the metapleuræ rugosely punctured, with a smooth space on the upper half at the base. The basal abscissa of radius, the 1st (and only) transverse cubital nervure, the cubitus beyond the latter (this part separated from the basal branch by a bulla) are thickened, the other parts faint and narrow; the radius from the areolet narrow and faint. Antennæ longer than the body; hind spurs white.

# Apanteles maculitarsis, sp. nov.

Black, the basal half of the ventral surface of abdomen

testaceous; legs testaceous, with a fulvous tinge, the 4 posterior coxæ black, the apex of the hind tibiæ, and the apices of the hinder tarsal joints broadly fuscous-black; wings clear hyaline, the stigma and nervures fuscous. Female.

Length 3 mm.

Grahamstown. January : Miss Page.

Ist abdominal segment as broad as long, its sides testaceous, the 2nd not quite so long as it and clearly shorter than the 3rd : all the segments smooth and shining ; the basal ventral testaceous; ovipositor very short. Antennæ black, longer than the body. Head and thorax smooth and shining. The nervures bounding the 1st cubital cellule are roundfy curved, thickened in the middle, narrowed below. The 2nd and 3rd segments are not keeled in the middle. Median segment smooth and shining, not keeled in the centre ; the 1st abdominal segment has a more perpendicular slope than usual, its apex is raised in the centre ; the hypopygium largely projects : the 2nd segment has 2 depressed lines running obliquely from the base to the apex, the central part thereby being narrowed at the base.

# ICHNEUMONIDÆ.

# Ophiononeura, gen. nov.

Disco-cubital nervure interstitial ; disco-cubital cellule without transverse basal nervure interstitial ; disco-cubital cellule without blister spots ; transverse median nervure in hind wings not broken by a nervure. Apex of clypeus transverse ; largely foveate at the sides above. Mesonotum rugose, without furrows. Metanotum with two areæ at the base, their keels broadly rounded ; the spiracles about 3 times longer than wide. Abdomen long, slender, compressed ; the ovipositor long. The antennæ are short, thickened towards the apex ; the clypeus depressed in the middle; mandibles curved, narrowed towards the apex ; middle tibiæ with one spur ; claws not pectinated ; tarsi spinose ; abdomen three times as long as the thorax ; wings short ; the entire thorax rugose ; the apex of median segment not produced ; scutellum

roundly convex; the spiracles on the 1st abdominal segment are placed at the base of the apical third, the disco-cubitus is roundly curved; the 1st discoidal cellule at the base half the width it is at the apex.

Comes nearest to the American genus *Ophionopterus*. The unbroken transverse median nervure in hind wings separates it from its Old World allies.

# Ophiononeura flavo-maculata, sp. nov.

Dark rufous; the eye orbits, except in the middle above and below, 2 marks, narrowed towards the base at the base of the mesonotum, a shorter, narrower one at the tegulæ, the scutellums, a line on the upper part of the propleuræ, and one below and in front of the tegulæ ivory-yellow; the 3 sternums, propleuræ at base, and the space at the sides of scutellums black, wings hyaline, the stigma testaceous, the nervures black. Female.

Length 15 mm., terebra 5-6 mm.

Grahamstown. Feb. and April : Misses Daly and Sole.

Head in front closely punctured; the front keeled in the centre. The rugose punctuation on the thorax runs into reticulations in places; the basal 3 segments of the abdomen, beneath, are ivory-yellow at their junction; the middle tarsi fuscous, the hind black.

# Limneria africana, sp. nov.

Black ; the mandibles, palpi, tegulæ, a spot at its base, the four front coxæ and trochanters, pale yellow ; the four front femora and tibiæ fulvous, their tarsi fuscous, the hind legs black, the fore trochanters pale yellow, the tibiæ broadly dark testaceous, the spurs yellow ; wings hyaline, the stigma testaceous, the nervures black ; areolet appendiculated, the pedicle as long as the lower basal nervure ; abdomen black ; the 2nd segment with a distinct fulvous-yellow band on its apex ; antennæ black. Female.

# Length 4-5 mm.

Museum Grounds, Grahamstown. November : Misses Daly and Sole.

Head, pro- and mesothorax alutaceous. Metanotum with 5 areæ, besides the large posterior median, which is transversely striated, strongly, distinctly, but not very closely; the areola is